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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/802,254	03/08/2001	Steven C. Nichols	NRS - 65001/102/101	6561
128 7590 07/12/2007 HONEYWELL INTERNATIONAL INC. 101 COLUMBIA ROAD P O BOX 2245 MORRISTOWN, NJ 07962-2245			EXAMINER MILLS, DONALD L	
			ART UNIT 2616	PAPER NUMBER
			MAIL DATE 07/12/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

Application No.

09/802,254

Applicant(s)

NICHOLS, STEVEN C.

Examiner

Donald L. Mills

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 19 April 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) 18 and 19 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 and 9-16 is/are rejected.
- 7) ☒ Claim(s) 8 and 17 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Newly submitted claims 18 and 19 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: the newly submitted claims 18 and 19 are directed towards data path arbitration while the originally submitted claims are drawn towards report message generation.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 18 and 19 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-7 and 9-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Liu et al (US 5,987,554), hereinafter referred to as Liu.

Regarding claims 1 and 10, Liu discloses a method and system of controlling the transfer of information across an interface between two buses, which comprises:

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*A message assembly register for receiving bit patterns* (Referring to Figure 2, request buffer **203** stores request data in the order that it is received. See column 6, lines 60-62;)

*A message-generating module receiving the report query message signal and the associated data signal and forming therefrom in the message assembly register a report message having as leading bits thereof a report message header specified by the query data field in the report query message signal, each of the at least first and second nodes providing an identical report message header responsive to a particular query data field value, and as low order bits thereof a series of bits representing the data value in the data signal generated by the node involved* (Referring to Figure 2, response buffer **205** queues outgoing response data that they are received. The outgoing response data format is identical (identical report message header) with corresponding data as dictated from CPU A controller 03 **109** (first node) and CPU B Controller 04 **111** (second node). See column 6, lines 51-67;)

*A message-synchronizing module providing a synchronizing signal on the data path* (Referring to Figures 1 and 2, the system interface commands **105** are executed synchronously. See column 7, lines 51-52;) and

*A message selection module copying a message assembled in the message assembly register into the send register, and responsive to the synchronizing signal, providing the send signal to the message-sending module* (Referring to Figure 2, the request buffer **203** stores request data in the order that it is received. See column 6, lines 60-62. And, response buffer **205** queues outgoing response data in the order that they are received. See column 6, lines 51-67.)

Regarding claims 2 and 11, Liu discloses *in each of the at least first and second nodes a memory for holding a query response list having a plurality of entries, each entry including a*

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*query data field value in association with a report message header value, and wherein the message-generating module further includes an element receiving the report query message signal and searching the query response list for a query data field value equaling the query data field value encoded in the report query message signal, and forming a report message in the message assembly register having the report message header associated in the query response list with the query data field value encoded in the report query message signal* (Referring to Figure 2, in association with CPU A controller 03 **109** (first node) and CPU B Controller 04 **111** (second node) the request buffer **203** stores request data in the order that it is received. And transmitting messages from the response buffer **205** that are associated with the requests. See column 6, lines 51-67.)

Regarding claims 3 and 12, Liu discloses *in each of the at least first and second nodes a memory for holding a send message queue having a plurality of messages and wherein the message generating module in each of the first and second nodes stores in the send message queue the contents of the message assembly register upon forming a report message therein, and wherein the message selection module selects individual messages from the send message queue, copies selected messages in to the send register, and responsive to a synchronizing signal occurring thereafter, provides the send signal to the message sending module* (Referring to Figure 2, in association with CPU A controller 03 **109** (first node) and CPU B Controller 04 **111** (second node) the response buffer **205** queues outgoing response data in the order that they are received. And transmitting messages from the response buffer **205** that are associated with the requests. See column 6, lines 51-67.)

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Regarding claims 4 and 13, Liu disclose *each message selection module includes an element employing arbitration-based message selection to select messages to copy into the send register* (Referring to Figures 1 and 2, the system interface commands **105** are executed synchronously thereby effectuating the reception and transmission of data. See column 7, lines 49-59.)

Regarding claims 5 and 14, Liu discloses *each element employing arbitration-based message selection selects messages in the send message queue whose numeric value is largest when all of the messages in the send message queue are treated as numeric values* (Referring to Figures 1 and 2, the system interface commands **105** instruct request buffer **203** and response buffer **205** which operate in a FIFO technique, thereby, selecting the next message which has been in the queue the longest time. In this manner, the message with the largest delay is treated first. See column 7, lines 26-35.)

Regarding claims 6 and 15, Liu discloses *each element employing arbitration-based message selection selects messages in the send message queue whose numeric value is smallest when all of the messages in the send message queue are treated as numeric values* (Referring to Figures 1 and 2, the system interface commands **105** instruct request buffer **203** and response buffer **205** which operate in a FIFO technique, thereby, selecting the next message which has been in the queue the longest time. In this manner, the first message is served. See column 7, lines 26-35.)

Regarding claims 7 and 16, Liu discloses *each of the at least first and second nodes a message-receiving module receiving the signal levels on the data path and from them forming individual incoming bit values, from the incoming bit values detecting the end of each message,*

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*and responsive to detecting the end of a message, providing the synchronizing signal* (Referring to Figures 1 and 2, the system interface commands **105** are executed synchronously thereby effectuating the reception and transmission of data. See column 7, lines 49-59.)

Regarding claim 9, Liu discloses *wherein each message-synchronizing module comprises an end-of-message detector in electrical connection to the data path and providing the synchronizing signal responsive to the end of each message* (Referring to Figures 1 and 2, the system interface commands **105** are executed synchronously thereby effectuating the reception and transmission of data. See column 7, lines 49-59.)

#### ***Allowable Subject Matter***

4. Claims 8 and 17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### ***Response to Arguments***

5. Applicant's arguments filed 19 April 2007 have been fully considered but they are not persuasive.

#### **Rejection Under 35 USC 102**

On page 11 of the remarks, regarding claims 1-7 and 9-16, the Applicant argues Liu does not disclose *a message-generating module that forms a report message having as leading bits a report message header, and where first and second nodes send data on a shared serial data path, each providing an identical report message header*. The Examiner respectfully disagrees. In

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response to applicant's arguments, the recitation "send data on a shared serial data path" has not been given patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

On page 11 of the remarks, regarding claims 1-7 and 9-16, the Applicant argues Liu does not disclose *a message-synchronizing module providing a synchronizing signal on the data path*. The Examiner respectfully disagrees. The claims are interpreted in a broad literal reasonable sense. Liu discloses the system interface commands 105 are executed synchronously (See column 7, lines 51-52.) After a command is issued, the client polls the SCR status to confirm command completion (synchronizing signal) (See column 7, lines 52-53.) Therefore, Liu discloses *a message-synchronizing module providing a synchronizing signal on the data path*.

On page 12 of the remarks, regarding claims 1-7 and 9-16, the Applicant argues Liu does not disclose *the send register coupled to a serial bus*. The Examiner respectfully disagrees. In response to applicant's arguments, the recitation "send register coupled to a serial bus" has not been given patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone.



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See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

### ***Conclusion***

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Donald L. Mills whose telephone number is 571-272-3094. The examiner can normally be reached on 8:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham can be reached on 571-272-3179. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Donald L Mills/

July 6, 2007

  
CHI PHAM  
SUPERVISORY PATENT EXAMINER

7/9/07